

REMARKS

STATUS OF THE CLAIMS

In accordance with the foregoing, claims 1, 2 and 7 have been amended. Claims 8-13 have been added.

No new matter is being presented, and approval and entry of the amended and new claims is respectfully requested.

REASONS FOR ENTRY

Applicants request entry of this Rule 116 Response and Request for Reconsideration because the amendments and new claims should not entail any further search by the Examiner since no new features are being added and no new issues are being raised. The amendments and new claims were not earlier presented because Applicants believed in good faith that the cited prior art did not disclose the present invention as previously claimed.

Moreover, the amendments and new claims do not significantly alter the scope of the claims and place the application at least into a better form for appeal. The Manual of Patent Examining Procedures sets forth in §714.12 that "[a]ny amendment that would place the case either in condition for allowance or in better form for appeal may be entered." (Underlining added for emphasis) Moreover, §714.13 sets forth that "[t]he Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified."

The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

REJECTIONS OF CLAIMS 1, 2 AND 7 UNDER 35 U.S.C. §102(b) AS BEING ANTICIPATED BY LOERCH (U.S. PATENT NO. 4,632,612)

The rejections of claims 1, 2 and 7 are respectfully traversed and reconsideration is requested.

Loerch discloses an apparatus and method for angularly orienting a machine tool spindle, which is connected to an electric motor that drives the spindle. (Column 2, lines 45-50). A single proximity sensor (32), mounted on the spindle head, generates a signal each time the target passes it as the spindle rotates. A transducer (39) is connected to the shaft of the motor to provide a continually updated output indicating the angular orientation of the shaft. (Column 2, lines 56-62 and FIG. 5). The machine tool includes a numerical control circuit that receives

the transducer outputs. The numerical control circuit (42) compares the transducer outputs with possible output values stored in a data storage table (44) and, thus, the numerical control circuit determines the angular position of the spindle. (Column 2, line 62-column 3, line 5).

In contrast, amended claim 1 of the present invention teaches a numerical controller wherein the motor control section receives the signals from a plurality of sensors through the interface unit and controls one motor corresponding to the plurality of sensors according to the correspondence between the sensors and the motors set in the data table. Therefore, a plurality of sensors can be used by a single motor.

According to the present invention, a servo motor can use signals from arbitrary sensors and, therefore, the numerical controller of the present invention permits easy system alteration and expansion. (See page 6, lines 7-10 and page 8, lines 17-18 of the Specification). Loerch does not teach using signals from a plurality of sensors for one motor, as recited in amended claim 1. Therefore, it is respectfully submitted that claim 1 patentably distinguishes over the reference.

Claim 2 depends from claim 1 and inherits the patentable features thereof. Thus, it is respectfully submitted that claim 2 is patentable over Loerch.

Claim 7 is a method claim with features similar to those of amended claim 1. The arguments above for amended claim 1 are asserted for claim 7. Therefore, for the foregoing reasons, it is respectfully submitted that claim 7 patentably distinguishes over the reference.

NEW CLAIMS 8-13

New independent claim 8 recites:

A numerical controller having a numerical control section that outputs movement commands and a motor control section that controls motors according to the movement commands from the numerical control section, the numerical controller comprising:
an interface unit receiving signals from sensors and sending the received signals to the motor control section; and
a data table storing a correspondence between the sensors and the motors, wherein the motor control section receives the signals from one sensor through the interface unit and controls a plurality of motors corresponding to the one sensor according to the correspondence between the sensors and the motors set in the data table.

As recited in new claim 8, one sensor can be used by a plurality of motors. Therefore, the motor control section does not have to transfer signals from one servo motor to another, which hinders the required high-speed control of the servo motors. (See page 3, line 23 – page 4, line 9).

It is respectfully submitted that the Loerch neither teaches nor suggests the features of new claim 8 and, thus, claim 8 is patentable over the reference.

New independent claim 9 is a method claim with features similar to those of new claim 8. The arguments above for amended claim 8 are asserted for new claim 9. Therefore, for the foregoing reasons, it is respectfully submitted that claim 9 patentably distinguishes over the reference.

Claims 10 and 11 depend from claim 8 and inherit its patentable features. Thus, it is respectfully submitted that claims 10 and 11 patentably distinguish over the reference.

New claim 12 corresponds to claim 3 rewritten in independent form including all of the limitations of original claim 1.

New claim 13 corresponds to claim 6 rewritten in independent form including all of the limitations of original claims 1 and 2.

As noted by the Examiner on page 2 of the final Office Action and page 3 of the Action mailed March 30, 2005, claims 3 and 6 would be allowable if rewritten in independent form including all of the limitations of their base and any intervening claims. Thus, it is respectfully submitted that claims 12 and 13 are allowable.

ALLOWABLE SUBJECT MATTER

The Examiner states that claims 3 and 6 are objected to for depending from a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base and any intervening claims.

Claims 3 and 6 depend from claim 1, which is patentable for the reasons set forth herein. Therefore, it is respectfully submitted that claims 3 and 6 are allowable as they are.

At page 4, item 5, of the Office Action, the Examiner states that claims 4 and 5 are allowable.

INFORMATION DISCLOSURE STATEMENT

It does not appear that the Examiner has considered the Information Disclosure Statement filed on May 26, 2005. It is respectfully requested that it be considered and the references made of record.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome, and all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

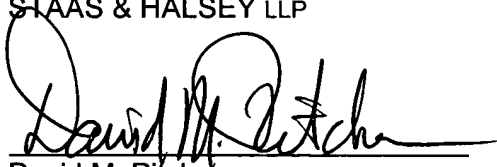
Respectfully submitted,

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Date:

October 13, 2005

By:



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